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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,417	12/12/2003	Daw-I Wang	ALIP0032USA	1416

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NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION  
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EXAMINER
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NGUYEN, LINH THI

ART UNIT	PAPER NUMBER
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2627

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/707,417

Applicant(s)

WANG, DAW-I

Examiner

Linh T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7 and 8 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuji (JP Publication number 2004199751) in view of Kobayashi (US 20040027945).

In regards to claims 1, 4, and 8, Yuji discloses an optical disc drive, method and apparatus includes: an optical pickup for reading an RF datum in an optical disc (Fig. 2); an FM demodulator (Fig. 2, element 5) for demodulating the RF datum so as to generate a bi-phase datum (Fig. 2, element 5s); a bi-phase data rule checker (Fig. 2, element 6) connected to the RF demodulator for checking if phases at each edge of neighboring bit cells of the bi-phase datum generated by the FM demodulator are different (Fig. 2, element 6s); a bi-phase data corrector (Fig. 2, element A) connected to the bi-phase data rule checker for generating a plurality of bi-phase data when the bi-phase data rule checker detects that at least one pair of phases at the edges of neighboring bit cells are not different (Paragraph [0060]); a bi-phase demodulator connected to the bi-phase data corrector for demodulating the plurality of bi-phase data so as to generate a plurality of ATIP (Absolute Time In Pre-groove) signals (Fig. 2, element 8); and a CRC checker (Fig. 2, element 9) connected to the bi-phase

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demodulator (Fig. 2, element 8); and CRC checker for selecting a correct ATIP signal transmitted from the bi-phase demodulator according to a test result of the CRC checker (Fig. 2, element 9).

Yuji does not but Kobayashi discloses a multiplexer (Fig. 3 element 46; selector), which is connected to bi-phase demodulator and CRC checker. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Yuji optical disc drive to include a selector as taught by Kobayashi. The motivation for doing so would have been to select the correct signals (Paragraph [0038], lines 7-11).

In regards to claims 2 and 5, Yuji discloses the optical disc drive and method further comprising an RF amplifier (Fig. 2, element 4; It known that optical head detect radio frequency signal) connected to the optical pickup and the FM demodulator for amplifying the RF datum read by the optical pickup (Fig. 2, element 5).

In regards to claims 3 and 7, Yuji discloses optical disc drive and method comprise of the bi-phase demodulator (Fig. 2, element 8). Yuji does not but Kobayashi discloses the optical disc drive further comprising a data buffer (Fig. 3, elements 41, 43, and 45; It is obvious that the error detection correction has a buffer in order to store AD1-AD3 addresses) and the multiplexer for temporarily holding the plurality of ATIP signals (Fig. 3, element 46, stores A1-A3). At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Yuji optical drive comprising of FM, correction signal, bi-phase demodulation, and CRC circuit to include

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a buffer connected to the selector as taught by Kobayashi. The motivation for doing so would have been to store the signals when a correct output is supposed to be selected from the buffer.

***Allowable Subject Matter***

Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yukito (JP Publication 2005117499) discloses a bi-phase demodulation by correcting the bi-phase mark.

Hirayama et al (US Publication 20050025006) discloses an apparatus detecting the address information by linking position.

In regards to claim 6, none of the references of record alone or combination disclose or suggest an optical pickup method, wherein in step (d) when n phases at each edge of neighboring bit cells of the bi-phase datum are not different, **generating a plurality of bi-phase data comprises generating 2.sup.n bi-phase data corresponding with the rule that phases at each edge of neighboring bit cells of the bi-phase datum are different according to the bi-phase datum.**


**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh T. Nguyen whose telephone number is 571-272-5513. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LN  
July 17, 2006

  
ANDREA WELLINGTON  
SUPERVISORY PATENT EXAMINER